

LOGIC CIRCUIT DEVICES

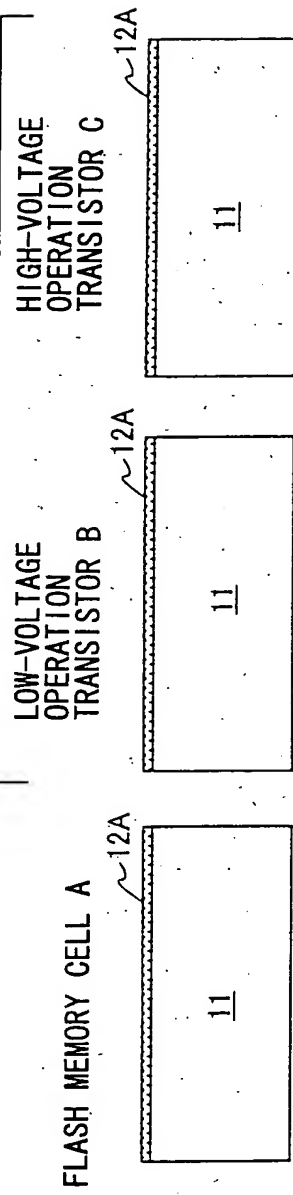


FIG. 1A  
PRIOR ART

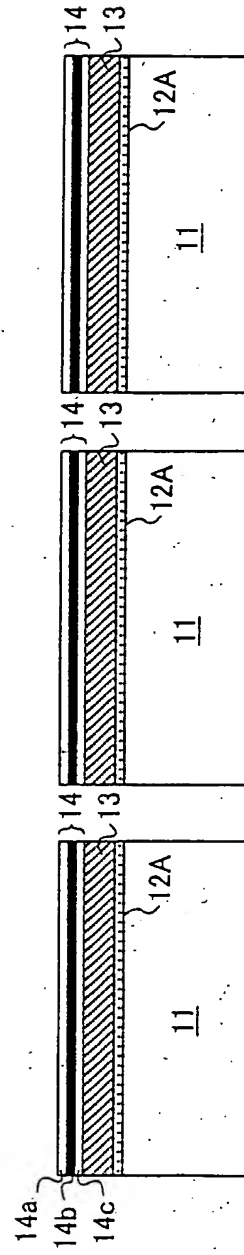


FIG. 1B  
PRIOR ART

LOGIC CIRCUIT DEVICES

FLASH MEMORY CELL A

15A

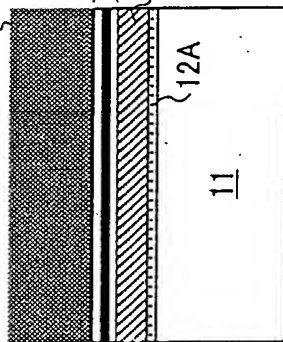
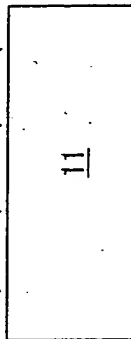


FIG. 1C  
PRIOR ART

LOW-VOLTAGE  
OPERATION  
TRANSISTOR B

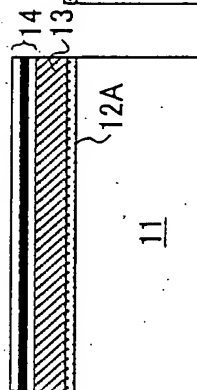
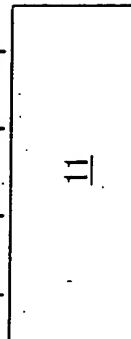
HF

↓ ↓ ↓ ↓ ↓ ↓

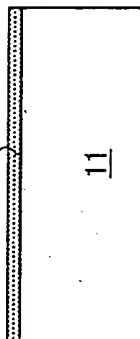


HF

↓ ↓ ↓ ↓ ↓ ↓



12C



12C

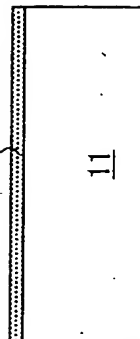


FIG. 1D  
PRIOR ART

LOGIC CIRCUIT DEVICES

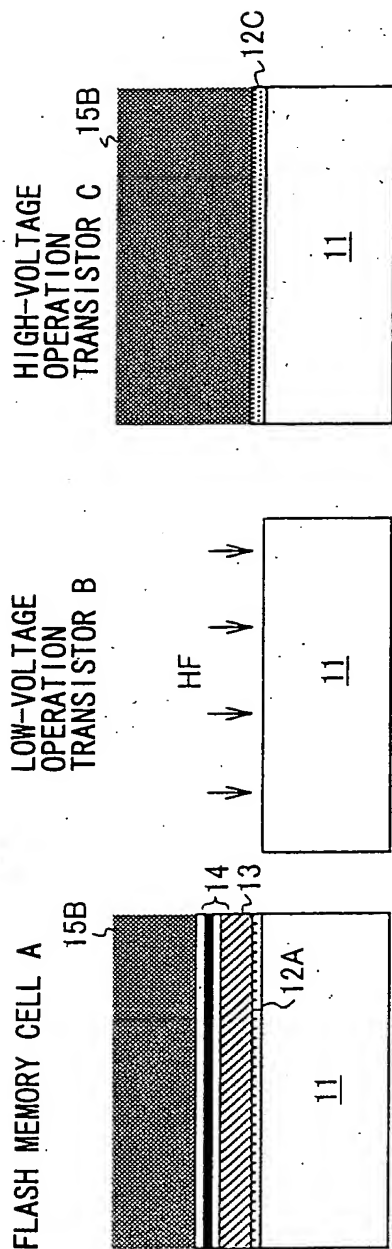


FIG. 1E  
PRIOR ART

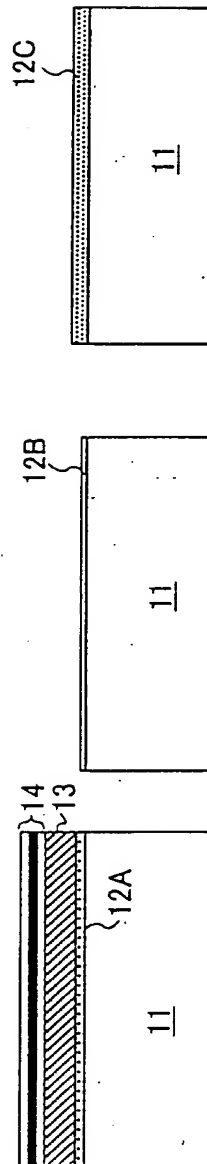


FIG. 1F  
PRIOR ART

FIG. 1G  
PRIOR ART

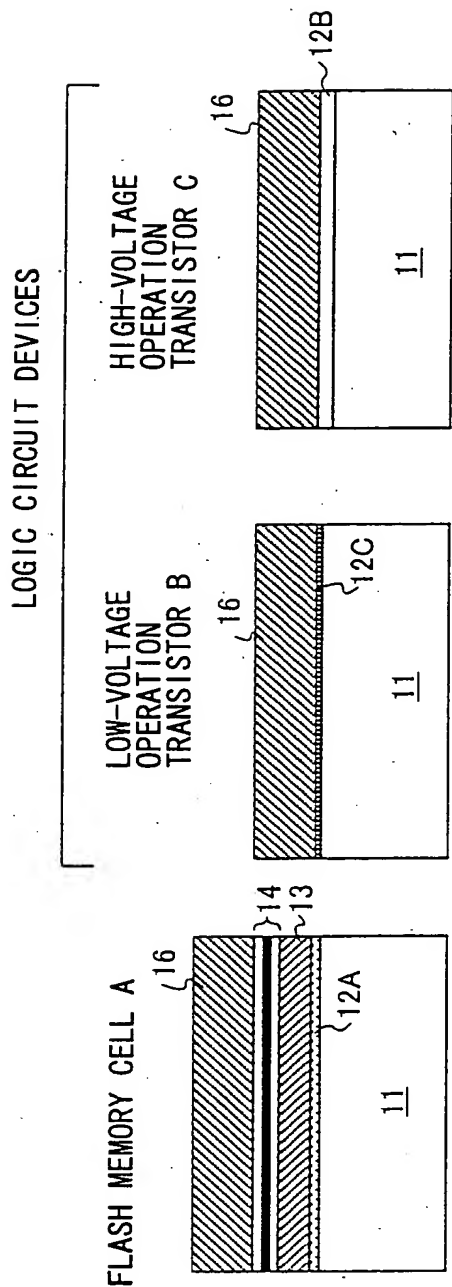


FIG. 1H  
PRIOR ART

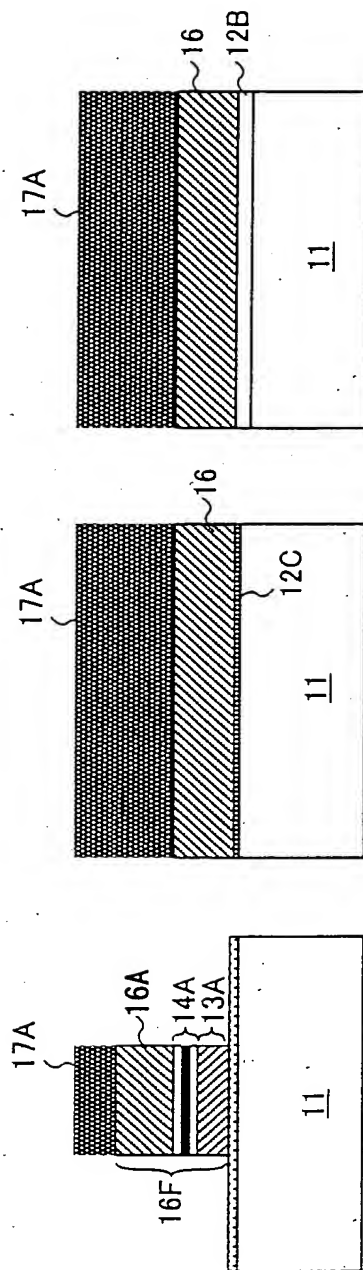
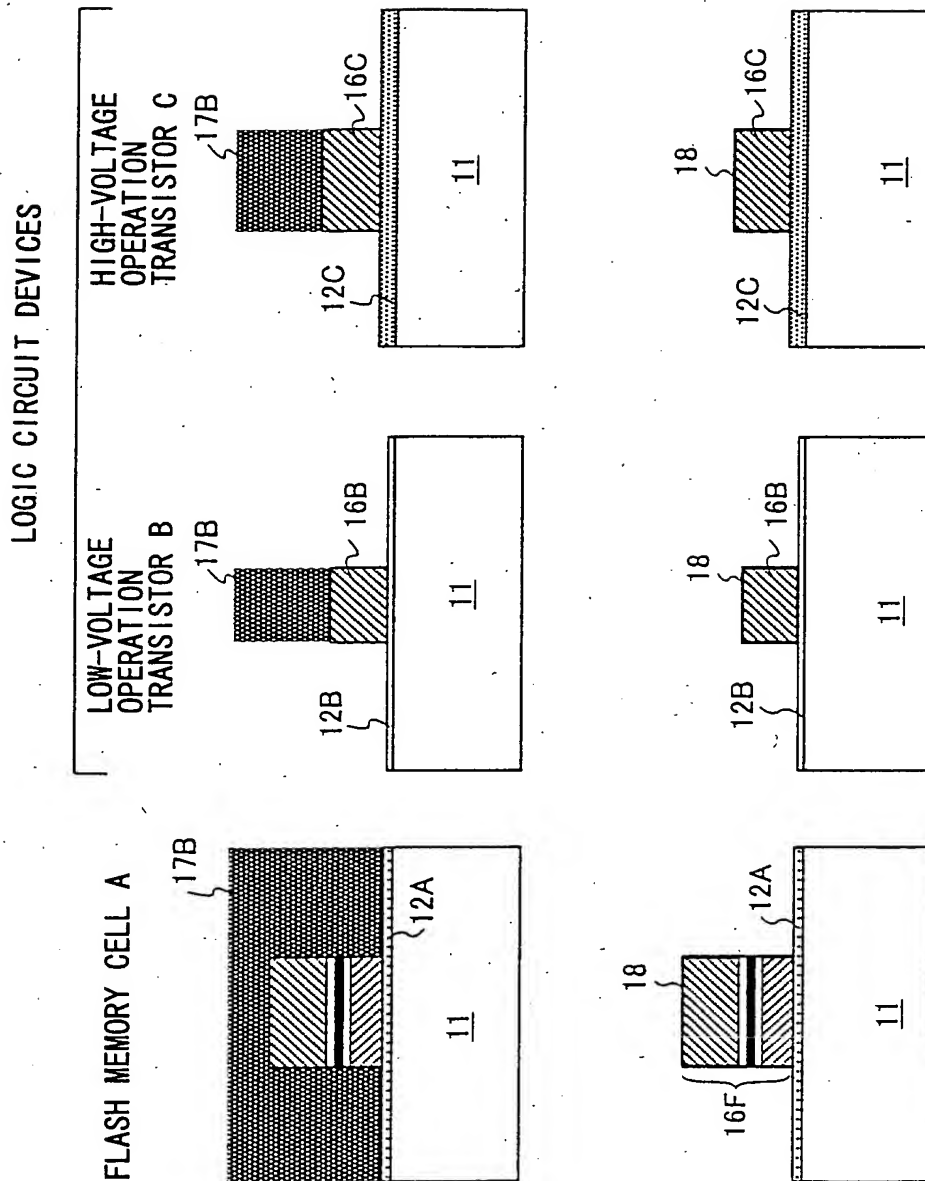


FIG. 1I  
PRIOR ART



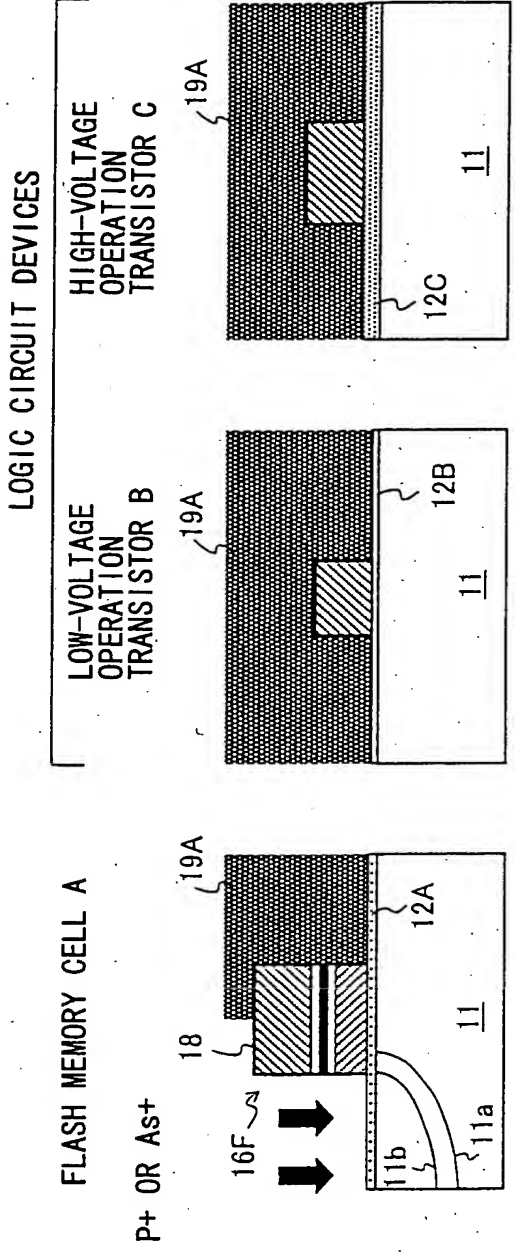


FIG. 1K  
PRIOR ART

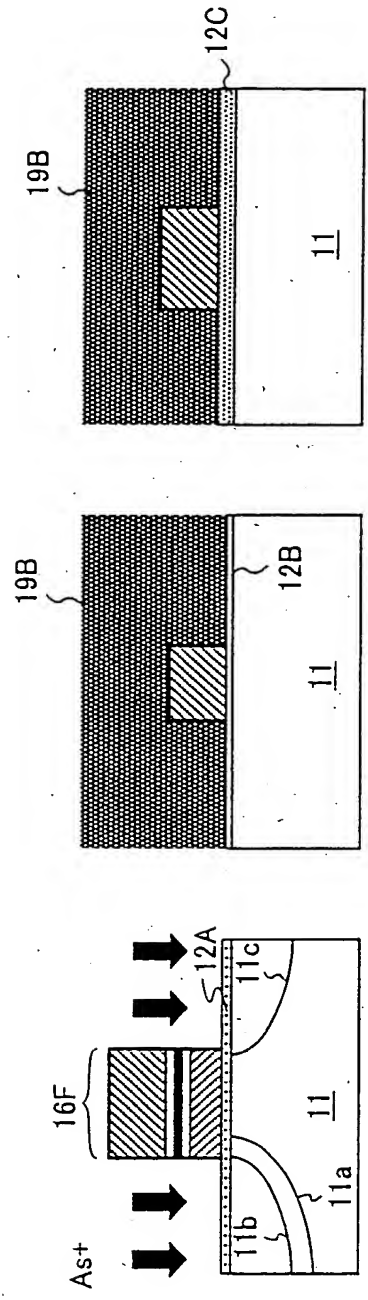


FIG. 1L  
PRIOR ART



## LOGIC CIRCUIT DEVICES

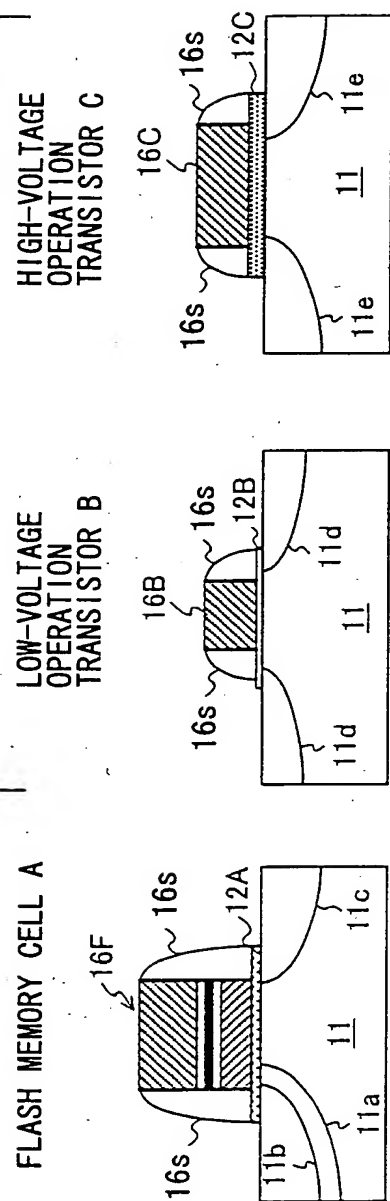


FIG. 10  
PRIOR ART

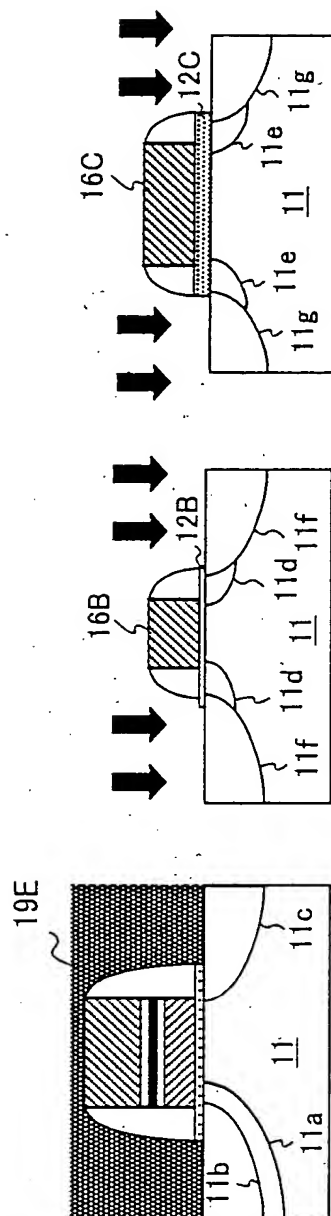


FIG. 1P  
PRIOR ART





FLASH MEMORY CELL

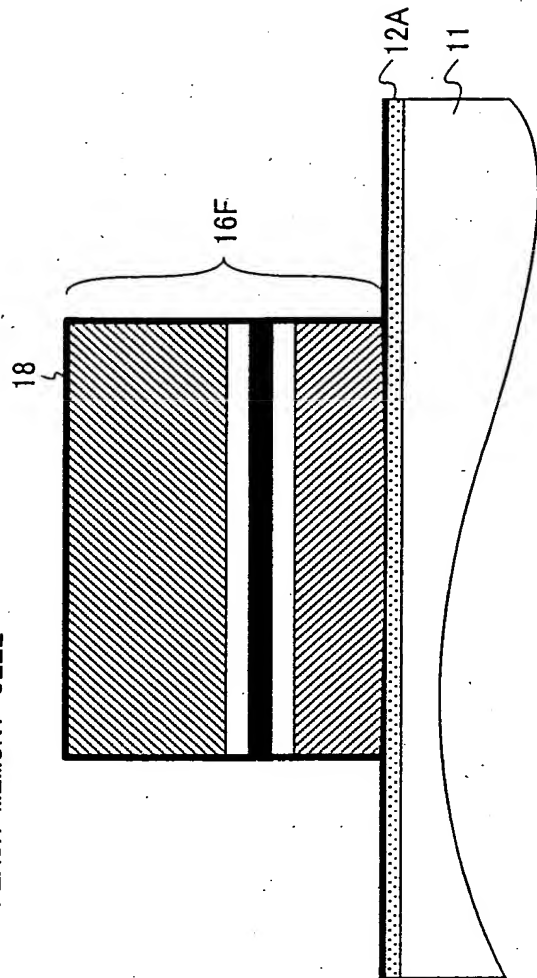


FIG. 2A  
PRIOR ART

LOW-VOLTAGE OPERATION TRANSISTOR

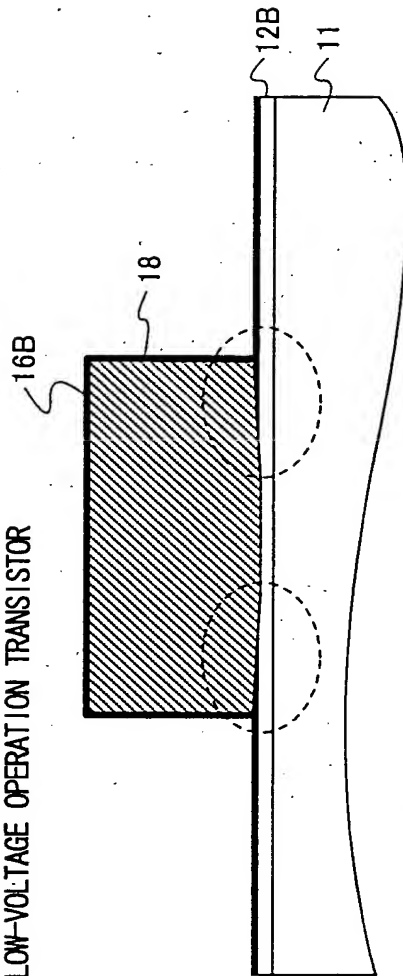


FIG. 2B  
PRIOR ART

FIG. 3A  
PRIOR ART

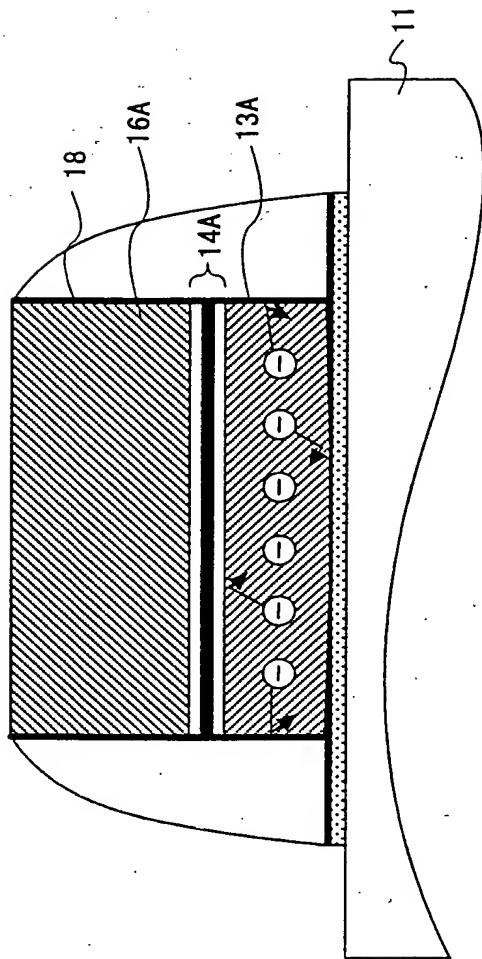


FIG. 3B  
PRIOR ART

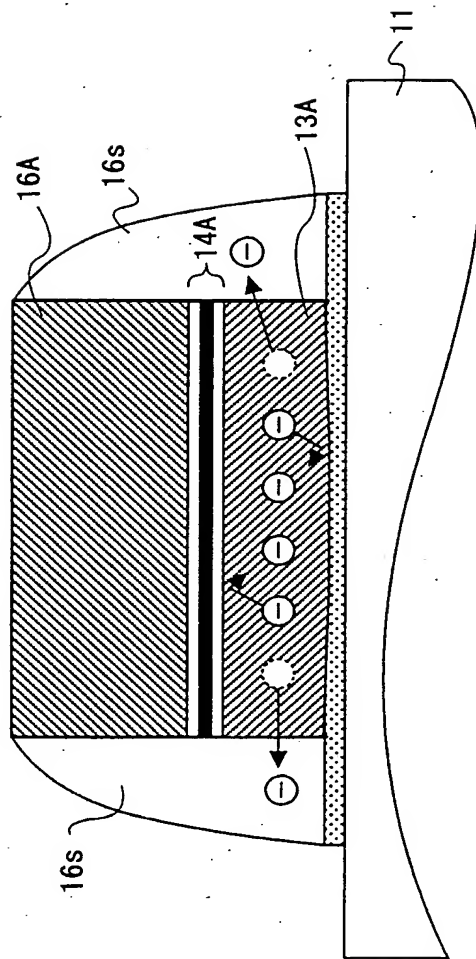
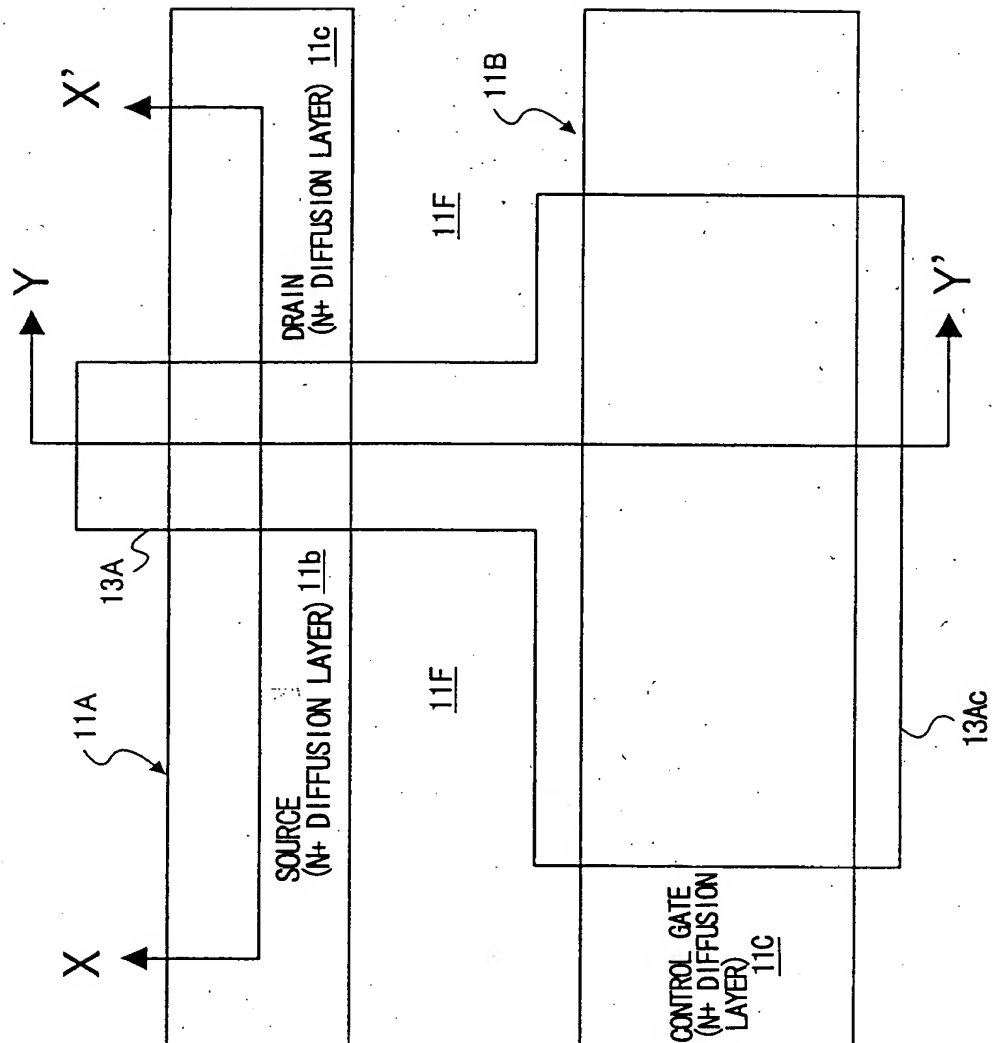
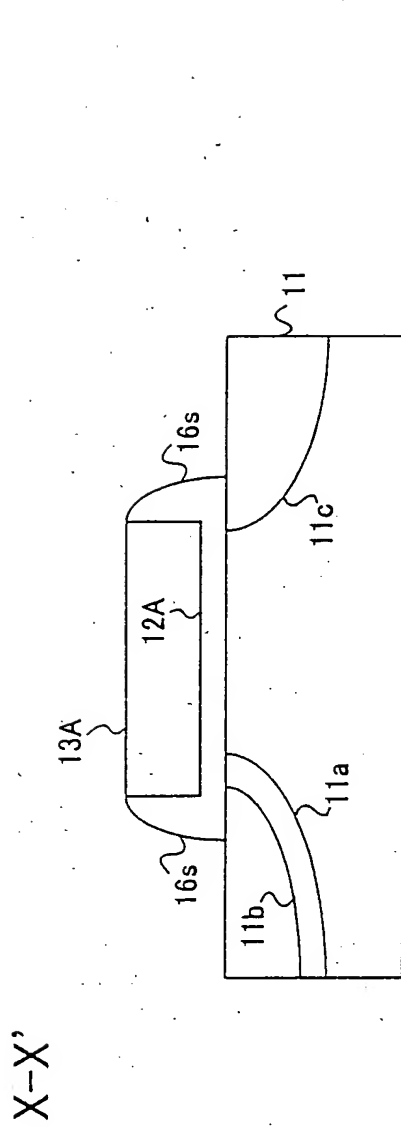
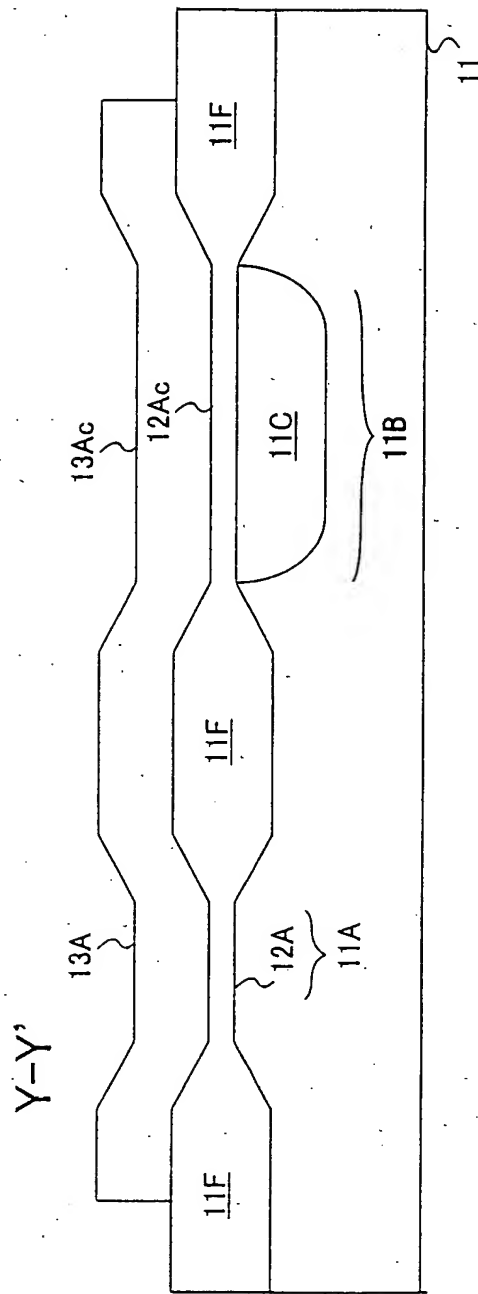


FIG. 4 RELATED ART





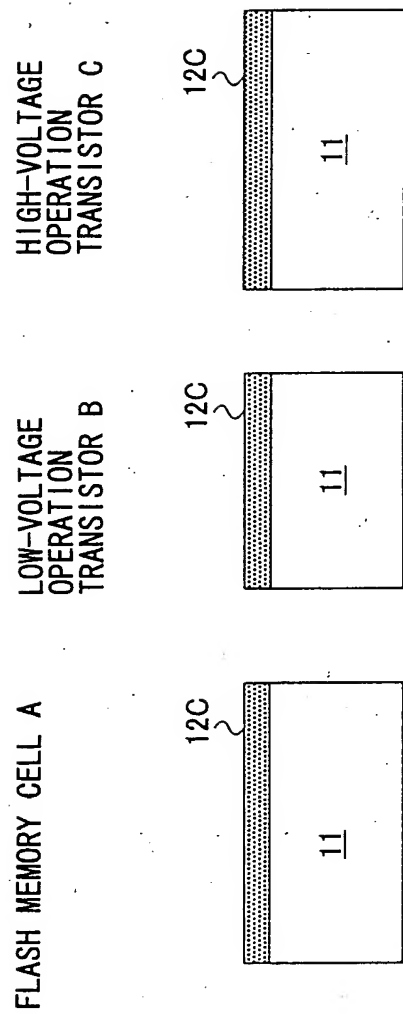
**FIG. 5A**  
**RELATED ART**



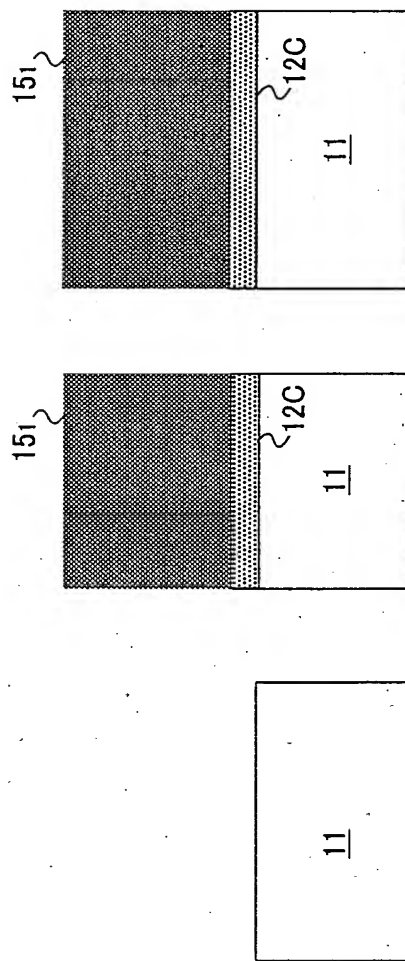
**FIG. 5B**  
**RELATED ART**



**FIG. 7A**  
**RELATED ART**



**FIG. 7B**  
**RELATED ART**



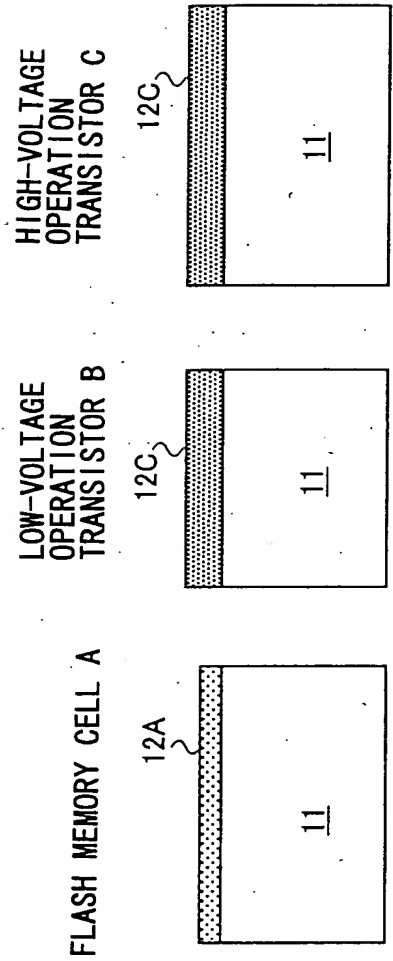


FIG. 7C  
RELATED ART

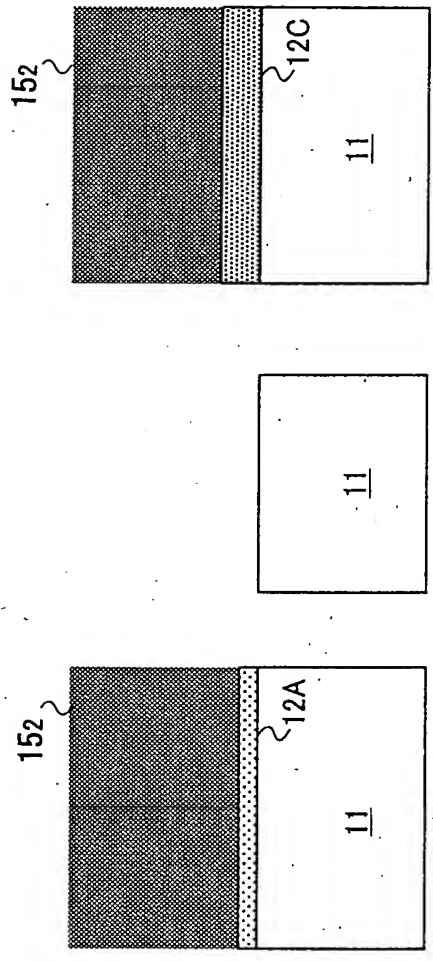


FIG. 7D  
RELATED ART





**FIG. 7G**  
**RELATED ART**

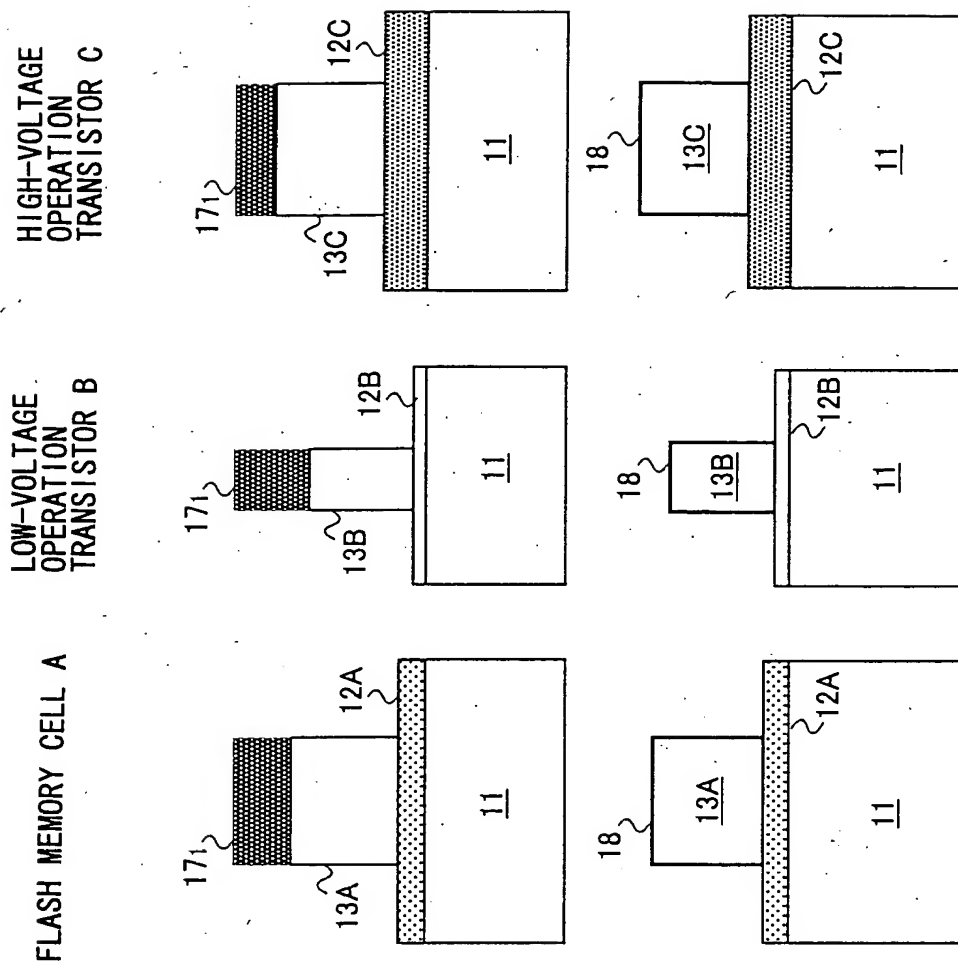




FIG. 7K  
RELATED ART

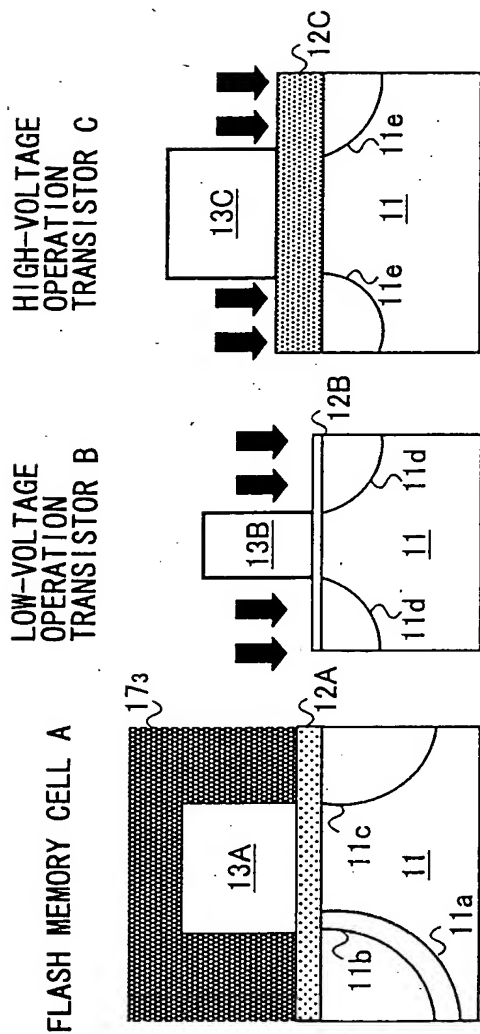
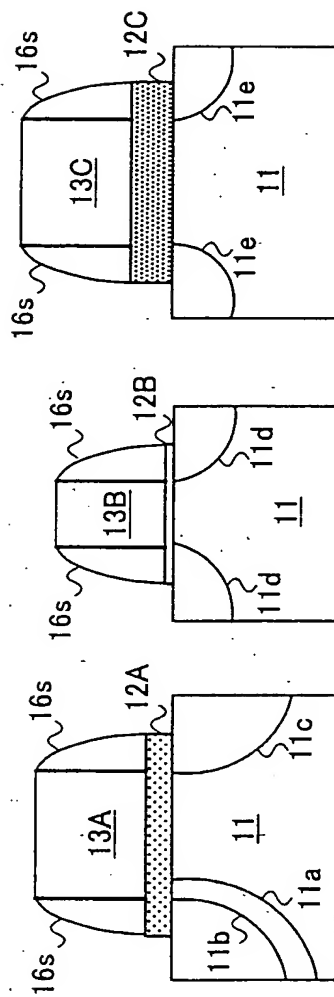


FIG. 7L  
RELATED ART



FLASH MEMORY CELL A

LOW-VOLTAGE  
OPERATION  
TRANSISTOR B

HIGH-VOLTAGE  
OPERATION  
TRANSISTOR C

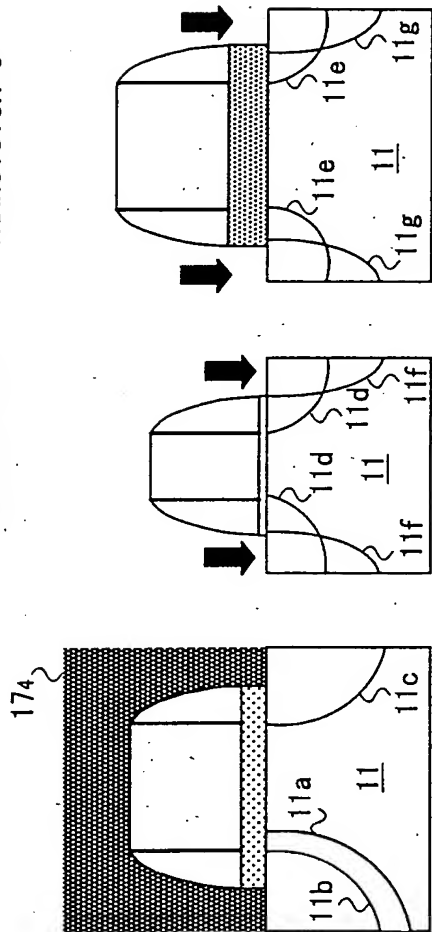
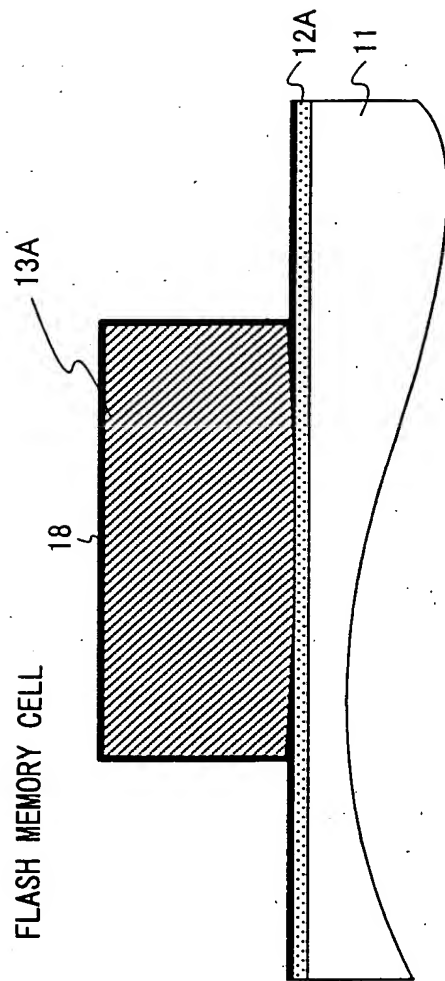
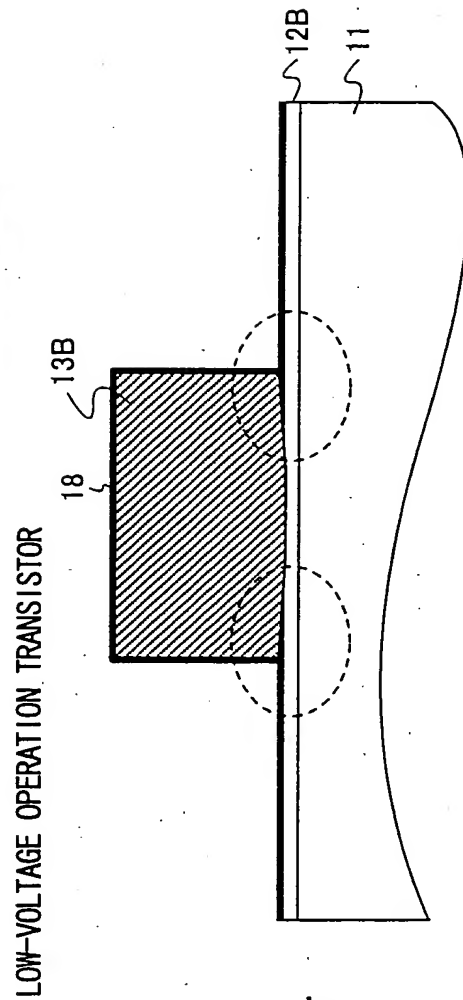


FIG. 7M  
RELATED ART

**FIG. 8A**  
**RELATED ART**



**FIG. 8B**  
**RELATED ART**



LOGIC CIRCUIT DEVICES

FLASH MEMORY CELL A

LOW-VOLTAGE OPERATION TRANSISTOR B

HIGH-VOLTAGE OPERATION TRANSISTOR C

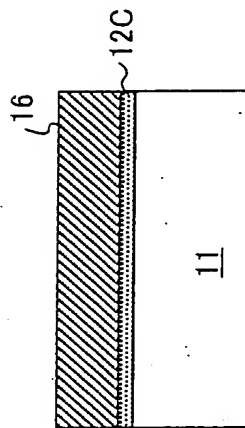
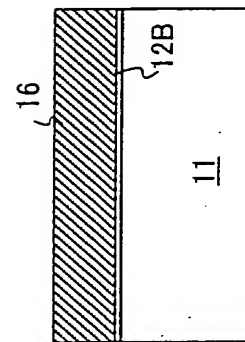
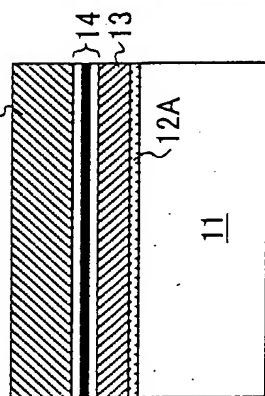


FIG. 9A

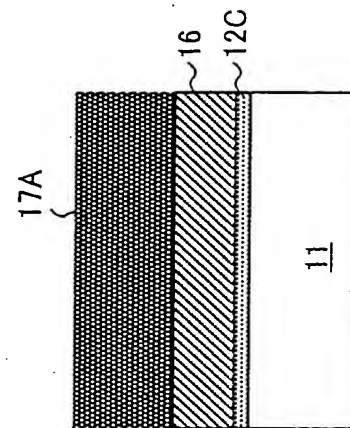
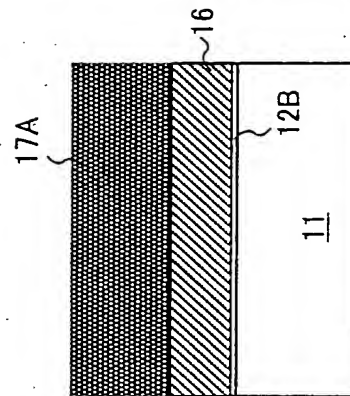
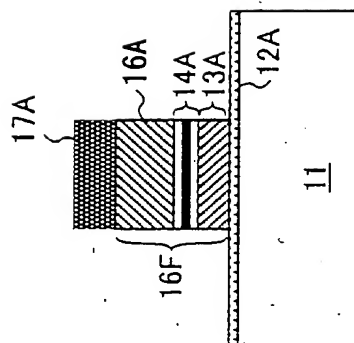


FIG. 9B

LOGIC CIRCUIT DEVICES

FLASH MEMORY CELL A

As+ OR P+

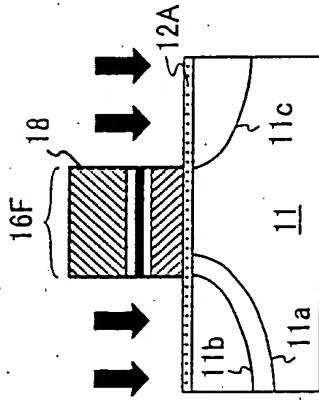
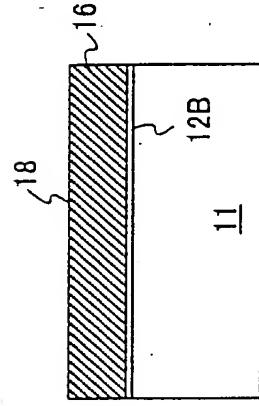


FIG. 9C

LOW-VOLTAGE  
OPERATION  
TRANSISTOR B



HIGH-VOLTAGE  
OPERATION  
TRANSISTOR C

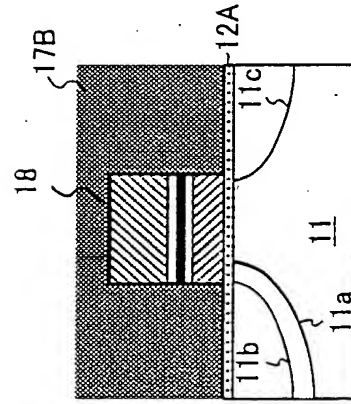
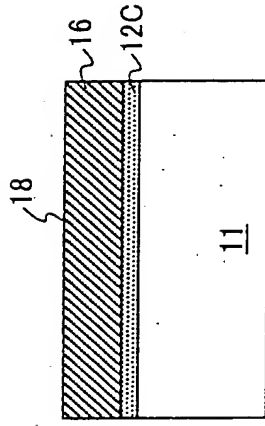
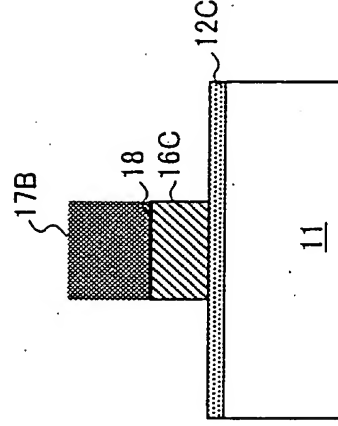
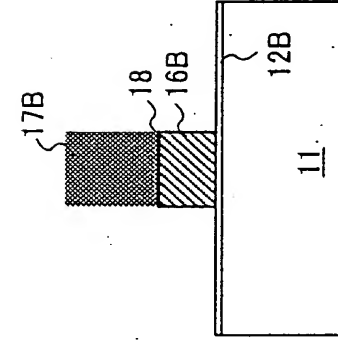


FIG. 9D





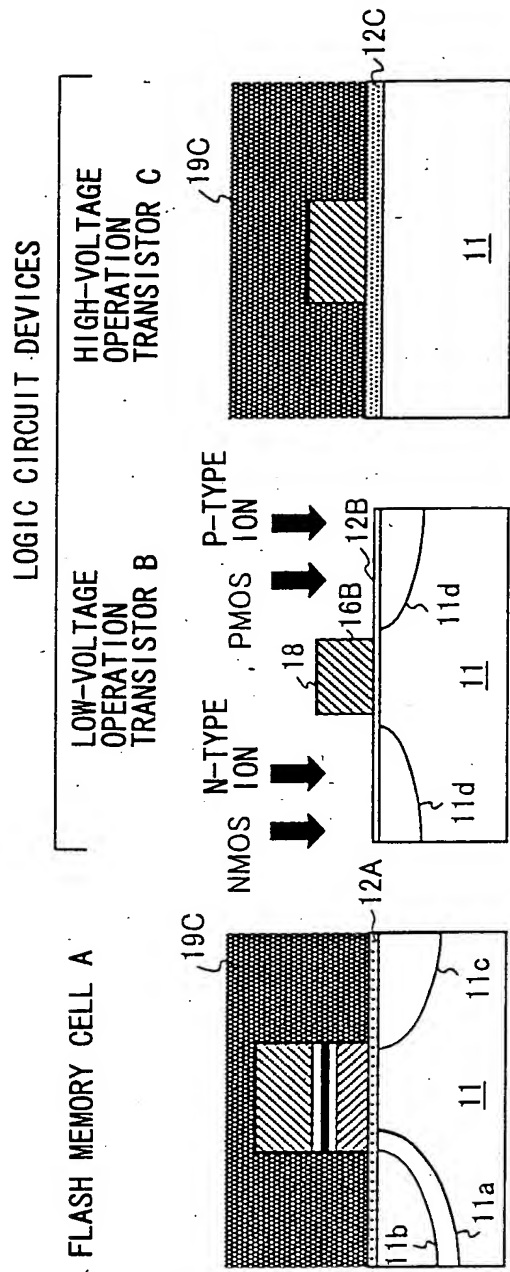


FIG. 9E

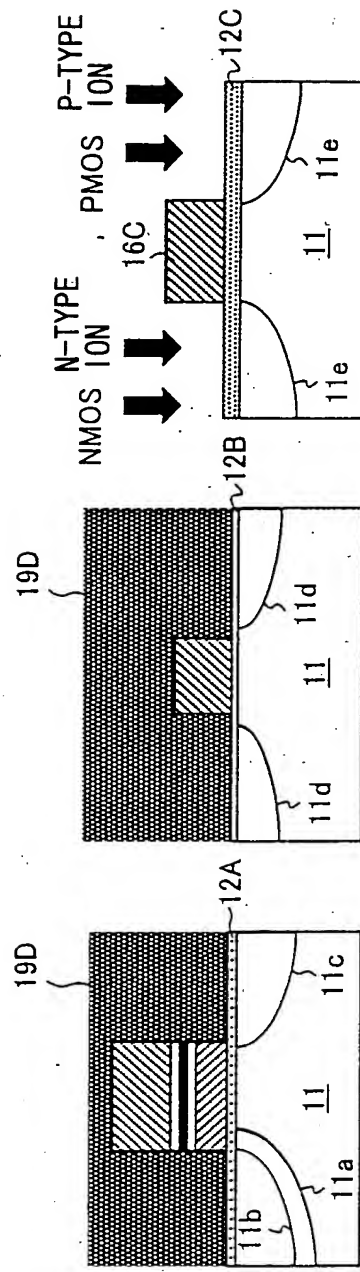


FIG. 9F

LOGIC CIRCUIT DEVICES

FLASH MEMORY CELL A

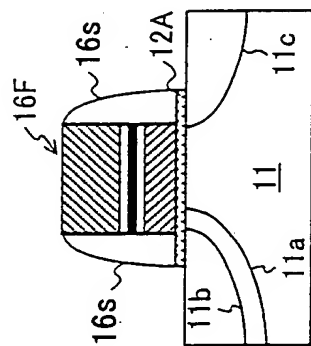
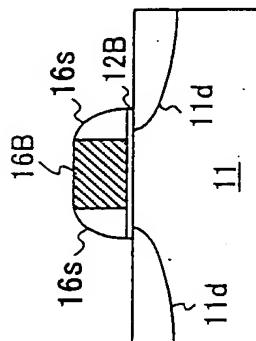
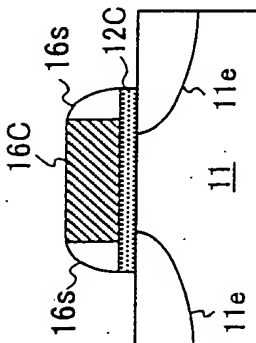


FIG. 9G

LOW-VOLTAGE  
OPERATION  
TRANSISTOR B



HIGH-VOLTAGE  
OPERATION  
TRANSISTOR C



19E

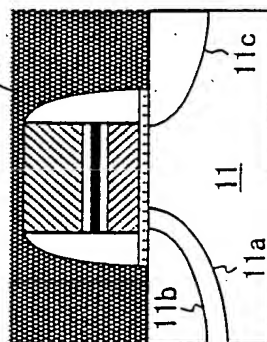
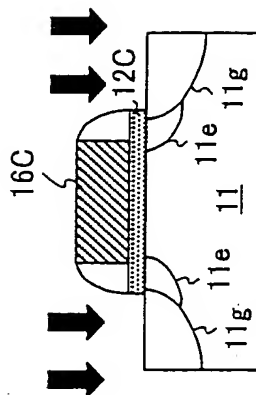
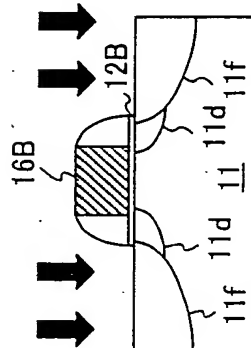


FIG. 9H





FLASH MEMORY CELL

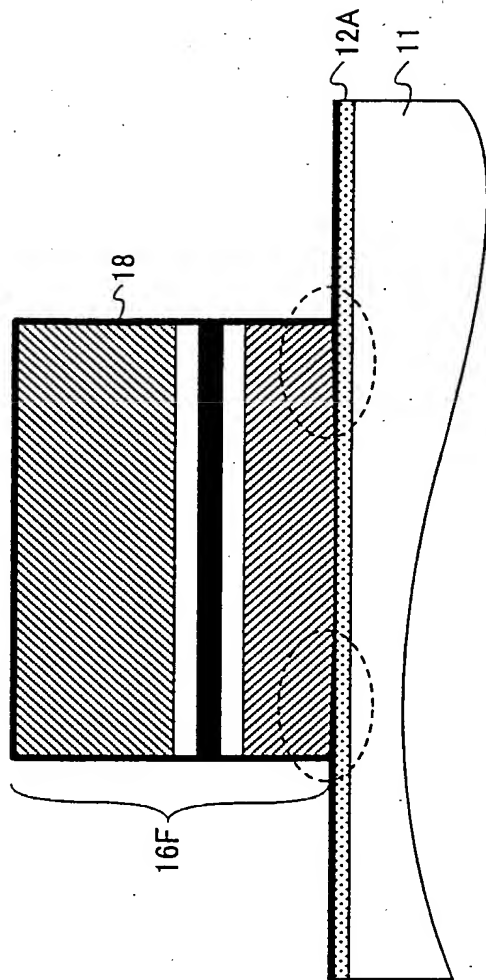


FIG. 10A

LOW-VOLTAGE OPERATION TRANSISTOR

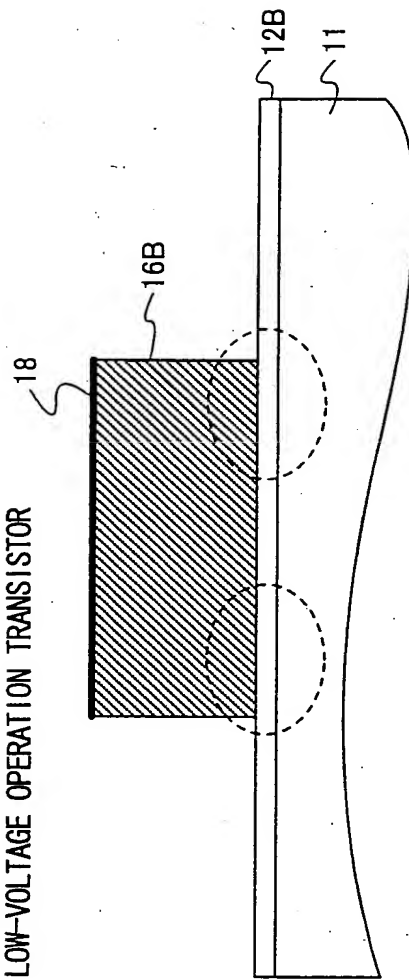


FIG. 10B



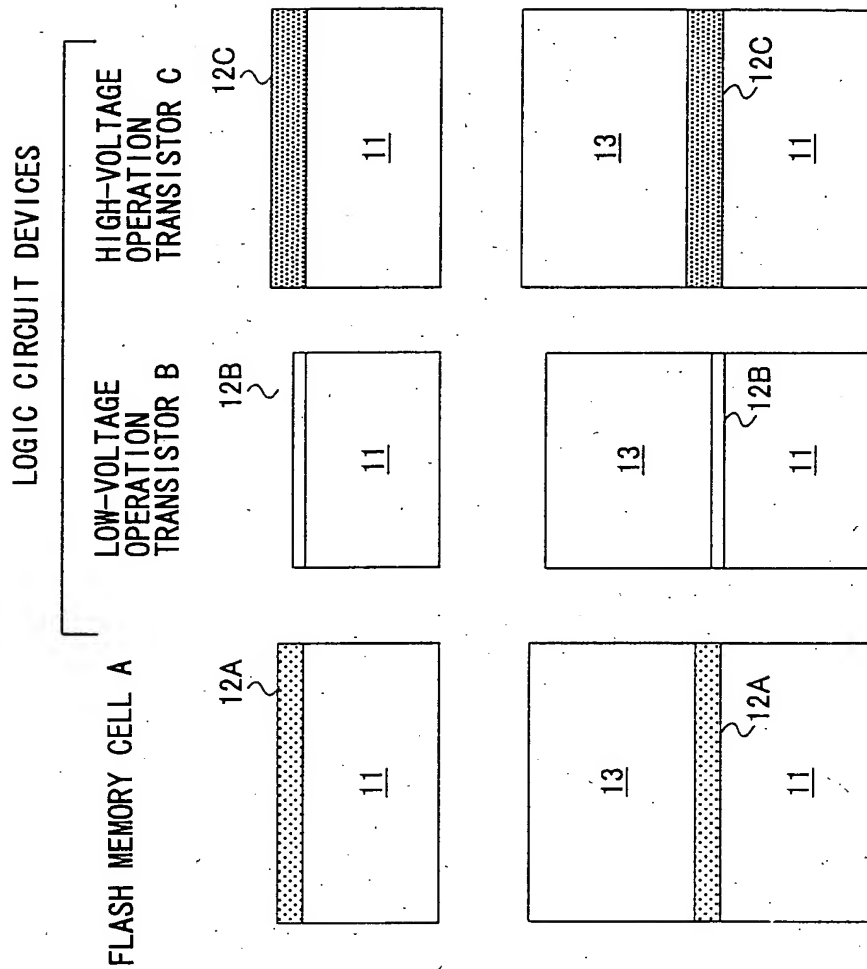


FIG. 12A

FIG. 12B

LOGIC CIRCUIT DEVICES

FLASH MEMORY CELL A

LOW-VOLTAGE  
OPERATION  
TRANSISTOR B

HIGH-VOLTAGE  
OPERATION  
TRANSISTOR C

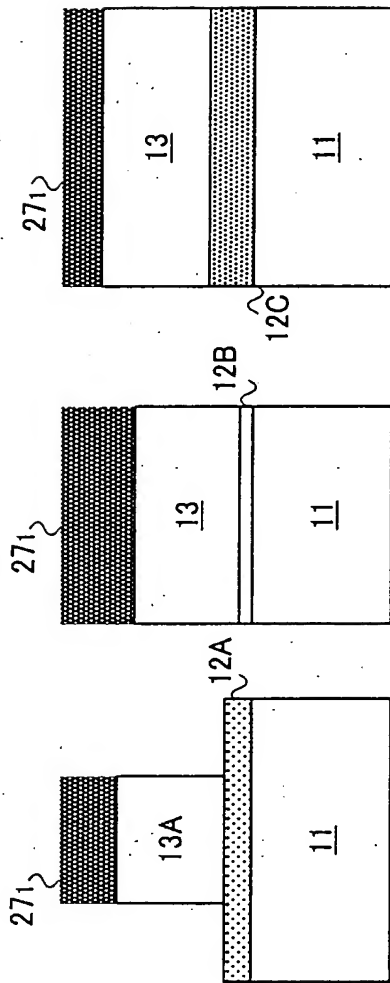


FIG. 12C

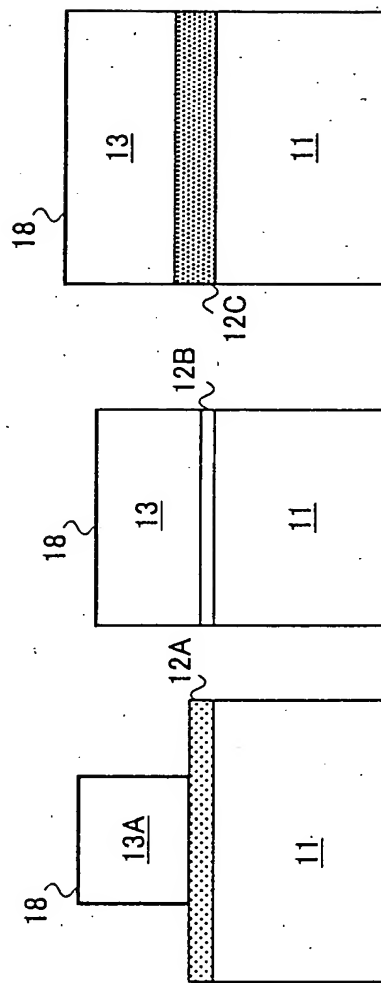


FIG. 12D

LOGIC CIRCUIT DEVICES

LOW-VOLTAGE  
OPERATION  
TRANSISTOR B

HIGH-VOLTAGE  
OPERATION  
TRANSISTOR C

FLASH MEMORY CELL A

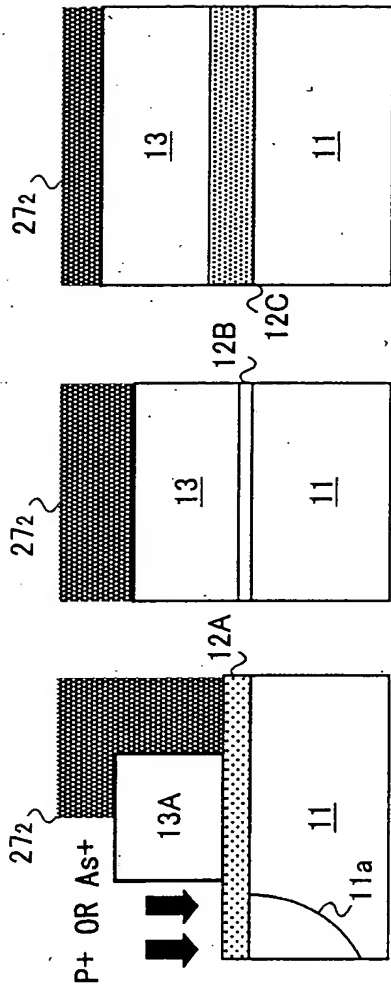


FIG. 12E

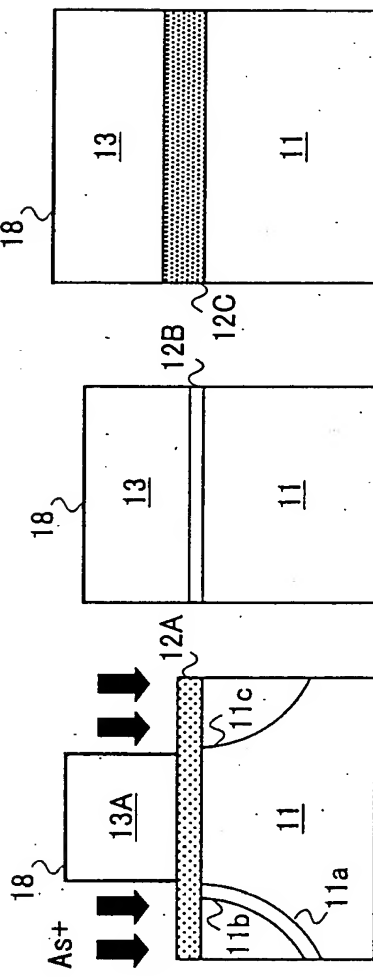


FIG. 12F







